

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Bunker Hill SF site ER - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region X

Subject: POLREP #5
Bunker Hill SF site ER

Smelterville, ID
Latitude: 47.5469330 Longitude: -116.1645230

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Date: 3/21/2019

Reporting Period: March 10-16, 2018

1. Introduction

1.1 Background

Site Number:	Contract Number:		
D.O. Number:	Action Memo Date:		
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	NPL	Operable Unit:	
Mobilization Date:	2/8/2019	Start Date:	2/9/2019
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

The Bunker Hill Superfund Site (Site) is located in the Coeur d'Alene Basin of Northern Idaho. The Site includes mining-contaminated areas in the Coeur d'Alene River corridor, adjacent floodplains, downstream water bodies, tributaries, and fill areas, as well as the 21-square-mile Bunker Hill "Box," where historical ore-processing and smelting operations occurred. The Site was listed on the National Priorities List (NPL) in 1983 and is assigned CERCLIS identification number IDD048340921. The Site is also known as the Coeur d'Alene Basin Cleanup. EPA has divided the Bunker Hill Superfund Site into three Operational Units (OUs); The OU 1 includes the populated areas of Bunker Hill Box and is where the current Bunker Hill Superfund Site Emergency Response (ER) is located.

1.1.2.1 Location

The location of on-site activities surrounds the Central Impoundment Area (CIA), slurry wall, I-90 subsidence zone, and the seep discharging into the Coeur d'Alene River. EPA and the Corps of Engineers recently completed construction of a subsurface groundwater cutoff wall in this same area, between the site and I-90 and the river. I-90, through this area, was constructed on top of historic mine waste. Groundwater levels are naturally high and there is a direct hydraulic connection between the site and the river. As a result, roadway subsidence and groundwater seeps are not historically uncommon. I-90 is a major east west transportation corridor through northern Idaho and is considered critical infrastructure. Within this area, an array of tasks associated with existing groundwater monitoring wells, new soil test pits, and new groundwater monitoring wells were prioritized.

1.1.2.2 Description of Threat

During EPA Remedial cleanup activities which include the construction of a groundwater cutoff wall and collection system to collect and treat contaminated groundwater, a sediment seep was discovered in the South Fork of the Coeur d'Alene River in the vicinity of the cutoff wall. Additionally, over the course of a few days a subsidence had formed in Interstate 90 near the seep. EPA Remedial program contractors have been investigating the source of the seep. Support from the EPA ER program was requested to provide rapid resources to identify the extent of the issue, assist EPA Remedial Project Managers in characterizing threats of a release of contaminated material to the Coeur d'Alene River, and what impact groundwater extraction wells could help in mitigating these threats.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Region 10 mobilized one OSC to assist the Remedial Program. START and ERRS contractors have also

been activated to support the assessment and mitigation.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

During the current PolRep reporting period, the EPA Region 10 Emergency Management Program continued to provide support to the EPA Region 10 Remedial Cleanup Program for the investigation of the situation and to initiate necessary mitigation measures. Details on the response actions performed during this reporting period are summarized below.

2.1.2 Response Actions to Date

Groundwater Well Data Collection

On March 12, at the request of the Remedial program, START began collecting additional groundwater samples from monitoring wells BH-SF-E-0403-U, BH-SF-E-0423-U, BH-SF-E-0424-L, BH-SF-E-0511-L, LA-01, LA-03, UA-07, and UA-08. On March 13, START collected additional samples from wells BH-SF-E-0520-U, BH-SF-E-0521-U, BH-SF-E-0522-U, UA-04, UA-09, UA-11, CU-01, and CU-02. Once LA-04 was installed and developed, a final sample at LA-04 was collected on March 16. All samples were delivered to SVL Analytical Inc. (SVL) in Kellogg, ID for analysis of site parameters with a 7-day turnaround time. Three additional parameters were also added to the site parameters list: Fluoride, Sodium and Potassium. Where possible, the lab was instructed to back-analyze previously submitted groundwater and surface water samples for the additional parameters.

Preliminary and final laboratory results from groundwater sampling activities were forwarded to the Remedial program as soon as they were received and START continued to use Scribe to manage sample information and results.

On Thursday, March 14 and Friday, March 15, groundwater level transducers and dataloggers were placed in 22 monitoring wells in preparation for the planned pump test of PW-1.5. Additionally, three transducers with additional data parameter capabilities (including conductivity) were placed in monitoring wells UA-04, CU-02, and LA-04.

Geophysical Survey

No additional actions were performed during the reporting period.

New Monitoring Wells

On Thursday, March 14, monitoring well LA-04 was drilled and installed by the START subcontractor Environmental West. The well was developed on Friday, March 15.

Extraction Wells and Pump Tests

On Thursday, March 14, ERRS subcontractor H2O Well Services drilled a borehole for pumping well PW-1.5. On Friday, March 15, the screen for PW-1.5 arrived on site and H2O began installing the well. During installation the bentonite bridged requiring the removal of the screen and a bailer to be brought on site to remove the bentonite. Following bailing and cleaning of the screen, the well was installed. On Saturday, March 16, development of the well was attempted. In addition to the parameters measured during previous pumping well development, Imhoff cones were employed to determine the settleable solids within the recovered groundwater. An action level of less than 50 parts per million (ppm) total suspended solids (TSS) and a turbidity of less than 500 nephelometric turbidity units (NTU) was required for the pump test to occur and neither of these parameters were met during development. Because of this, the planned pump test of PW 1.5 was canceled.

Tank Farm and Conveyance Pipeline

ERRS constructed and installed cribbing along the conveyance pipeline for support and installed jersey barriers along the length of the pipeline to prevent movement of the line during flow-related expansion. ERRS also constructed five manifolds, with two installed into the conveyance system during this reporting period, and three more to be installed the following week.

ERRS replaced an over-sized generator for the production wells and staged a larger 6 inch booster pump to replace 4 inch pump. The 6 inch pump will be installed next week and the 4 inch pump will be demobilized.

A START engineer began to prepare a schematic of the water conveyance system detailing the layout and specifications.

Emergency Discharge of Extracted Groundwater

EPA continued to manage extracted groundwater in accordance with the Water Management and Emergency Discharge Contingency Plan that was prepared for the site. On Monday, March 11, ERRS discharged the remaining volumes of extracted groundwater at the designated discharge location. ERRS and START monitored the discharge ditch for signs of water flow towards Bunker Creek. All discharged water appeared to infiltrate into the ground at the discharge point, and no flow was observed towards Bunker Creek.

Site Logistics

An EPA Remedial Project Manager was on site from Tuesday, March 12 to Thursday, March 14 to coordinate the transition of ongoing site tasks and data streams between the EPA Emergency Management Program and the EPA Remedial Program.

ERRS continued to install upgrades and improvements to the existing crossing between the support zone and the extraction well zone at the northwest corner of the CIA. The access bridge to the treatment pond was additionally removed and prepared for demobilization following the finalization of the water conveyance pipeline construction.

EPA coordinated with the Idaho Transportation Department (ITD) to schedule lane closures for access to roadside shoulders and lanes of traffic for monitoring well drilling and development.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The Bunker Hill site is a current NPL site. Previous Known PRPs include:

Bunker Hill Mining Corporation
Placer Mining Corporation
Liberty Silver Corporation
Gulf Resources & Chemical Corporation
Pintlar Corporation
ASARCO, Inc.
Government Gulch Mining Company, Ltd,
Federal Mining and Smelting Company
Hecla Mining Company
Sunshine Mining Company
Callahan Mining Corporation
Union Pacific Railroad Company

2.2 Planning Section

2.2.1 Anticipated Activities

The EPA Region 10 Emergency Management Program will continue to support the EPA Remedial Program in the investigation of the situation and initiation of mitigation measures.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

ERRS will install the three additional manifolds in the conveyance system and perform a second "shake down" test of the entire system. Additionally, ERRS installed access caps on the PW wells.

The temporary access bridge across the drainage ditch will be demobilized, and ERRS will finish repairs and improvements to site roads and BMPs. The remaining frac tank will be decontaminated and demobilized from site.

EPA Region 10 Emergency Management Program and the ERRS and START contractors are planning to demobilize from site and continue to assist in the transition from the emergency response phase to ongoing monitoring and remedial activities.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$1,252,007.39	\$780,000.00	\$472,007.39	37.70%
TAT/START	\$890,919.00	\$868,308.27	\$22,610.73	2.54%
Intramural Costs				
Total Site Costs	\$2,142,926.39	\$1,648,308.27	\$494,618.12	23.08%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

2.5.2 Liaison Officer

2.5.3 Information Officer

Mark MacIntyre

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

USEPA
USACE
IDEQ
ITD

4. Personnel On Site

EPA
USACE
IDEQ
IDOT
START
ERRS
Jacobs
Environmental West Exploration
H2O
Sage Earth Sciences

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.